December 4, 2000

M E M O R A N D U M

TO: Orville D. Green
Program Administrator
State Air Quality Program

FROM: Bill Rogers, Air Quality Engineer
Civil/Environmental Engineering
State Technical Services Office

SUBJECT: P# 9701-164-1 Technical Analysis for Tier I Operating Permit (#027-00064)
Western World, Incorporated, Circle J Trailers; Caldwell, Idaho

PERMITTEE:	Western World, Inc., Circle J Trailers 200 N. Kit Avenue Caldwell, Idaho
PERMIT NO:	027-00064
STANDARD INDUSTRIAL CLASSIFICATION	3715
DESCRIPTION:	Motor Vehicles and Motor Vehicle Equipment
KIND OF PRODUCTS:	Horse, Utility, and Cargo Trailers
RESPONSIBLE OFFICIAL:	Robert A. Bushnell, Jr., President
PERSON TO CONTACT:	Sharon Deeds, Coordinator
TELEPHONE NO:	(208) 459-0842
# OF FULL-TIME EMPLOYEES:	170
AREA OF OPERATION:	14.9 acres
FACILITY CLASSIFICATION:	A
COUNTY:	Canyon
AIR QUALITY CONTROL REGION:	064
UTM COORDINATES:	524.0,4837.8
EXACT PLANT LOCATION:	Bordering Kit Avenue/Simplot Blvd., Caldwell, Idaho

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LIST OF ACRONYMS

ACFM	Actual Cubic Feet per Minute
AFS	AIRS Facility Subsystem
AIRS	Aerometric Information Retrieval System
AQCR	Air Quality Control Region
CFR	Code of Federal Regulations
CO	Carbon Monoxide
DEQ	Idaho Department of Environmental Quality
dscf	Dry Standard Cubic Feet
EF	Emission Factor
EPA	United States Environmental Protection Agency
gpm	Gallons per Minute
gr	Grain (1 lb = 7000 Grains)
HAPs	Hazardous Air Pollutants
IC	Integrated Chip
IDAPA	Idaho Administrative Procedures Act
km	Kilometer
lb/hr	Pound per Hour
MMBTU	Million British Thermal Unit
NESHAP	National Emission Standards for Hazardous Air Pollutants
NWP	Northwest Pipeline Corporation
NO_2	Nitrogen Dioxide
NO_x	Nitrogen Oxides
NSPS	New Source Performance Standards
O_3	Ozone
PM	Particulate Matter
PM_{10}	Particulate Matter with an Aerodynamic Diameter of 10 Micrometer (μm) or Less
ppm	Parts per Million
PSD	Prevention of Significant Deterioration
PTC	Permit to Construct
SCC	Source Classification Code
scf	Standard Cubic Foot
SO_2	Sulfur Dioxide
TSP	Total Suspended Particulates
T/yr	Tons per Year (1 Ton = 2000 lb)
μm	Micrometers
VE	Visible Emissions
VOC	Volatile Organic Compound

1. PURPOSE

The purpose of this memorandum is to set out the legal and factual basis for this Tier I Operating Permit (OP) in accordance with IDAPA 58.01.01.362, Rules for the Control of Air Pollution in Idaho (Rules).

Idaho Department of Environmental Quality (DEQ) staff have reviewed the information provided by Western World, Incorporated, Circle J Trailers (WWI,CJT), regarding the operation of their facility in Caldwell, Idaho. This information was submitted based on the requirements of the Tier I OP in accordance with Section 58.01.01.300 of the Rules.

Based on the information submitted, DEQ has drafted a Tier I OP for WWI,CJT. The permit has been submitted for public comment as required by IDAPA 58.01.01.364, and for review by the United States Environmental Protection Agency (EPA) as required by IDAPA 58.01.01.366.

2. SUMMARY OF EVENTS

On August 13, 1997, DEQ received the Tier I OP application from WWI,CJT for its Caldwell facility. The application was determined administratively complete on February 25, 1998. A draft permit was made available for public comment from February 9, 2000, to March 10, 2000. No comments were received. A proposed permit was submitted to EPA from October 11, 2000, to November 24, 2000, for their 45-day review. EPA had no objections with regard to the terms and conditions of the proposed permit.

3. BASIS OF THE ANALYSIS

The following documents were relied upon in preparing this memorandum and the Tier I OP:

a. Tier I Air Operating Permit Application, (August 13, 1997; Western World, Inc., Circle J Trailers; Caldwell, ID);

b. Compilation of Air Pollutant Emission Factors, AP-42, Fifth Edition, January 1995, Office of Air Quality Planning and Standards, United States Environmental Protection Agency;

c. 40 CFR Part 70;

d. Guidance developed by EPA and DEQ;

e. Title V permits issued by other jurisdictions; and

f. Documents and procedures developed in the Title V Pilot Operating Permit program.

4. REGULATORY ANALYSIS - GENERAL FACILITY

4.1 Facility Description

4.1.1 General Process Description

WWI,CJT manufactures utility, cargo, stock and horse trailers. The trailers are made of steel framing, a sheet metal shell, and a fiberglass roof. Axles, tires, glass, etc. are purchased from other vendors and installed in the proper manufacturing sequence. The manufacturing process consists of three interdependent processes: trailer assembly, trailer painting, and fiberglass roof production. In all cases, paint and fiberglass products are applied using high volume, low pressure (HVLP) spray guns.

Each trailer is made from stock steel and sheet metal that is fabricated on-site and welded together to create the desired trailer. Once the trailer is assembled, it is transported to Building #5 to be prepped, primed, and painted. Oil, dirt and other surface debris are washed and wiped from all surfaces. Any surface imperfection is grinded off and the surface is buffed and wiped clean. Surfaces not intended to be painted are masked and taped. Primer is applied in the prime booth and allowed to dry. Every seam is then caulked. Surfaces that are hard to reach are pre-painted in the cut-in booth. The finish coat of paint is applied in the top coat booth. After painting, the trailer is moved into the heat booth to allow the paint to dry and cure. The trailer is taken from the heat booth and moved to a staging area to await roof installation.

Fiberglass roof production takes place in Building #2. This process begins as a roof mold is cleaned and then waxed. Wax makes it easier to remove the finished roof from the mold. Gel coat is applied onto the mold in the gel coat booth and then allowed to air dry. When the gel coat is dry, fiberglass strands, resin and a catalyst are applied to the gel coat surface in the chop booth. The surface is

hand rolled to remove any surface bubbles. Additional coatings, as required, are applied and rolled. The mold is moved to a heat booth where the fiberglass and resin are allowed to dry and cure. The fiberglass roof is then removed from the mold, transported to the trailer staging area in Building #5, and attached to the trailer.

4.1.2 Facility Classification

This facility is a major facility as defined by IDAPA 58.01.01.008.10. The facility is not a designated facility as defined by IDAPA 58.01.01.006.27. The facility is not subject to any federal New Source Performance Standards (NSPS) in accordance with 40 CFR 60, National Emission Standards for Hazardous Air Pollutants (NESHAP) in accordance with 40 CFR 61, or National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories in accordance with 40 CFR 63. The SIC code defining the facility is 3715 (Motor Vehicles and Motor Vehicle Equipment - Truck Trailers) and the facility classification is A.

4.1.3 Area Classification

WWI,CJT is located in Caldwell, Idaho, which is in Canyon County. Canyon County is located in Air Quality Control Region (AQCR) 64 and UTM Zone 11. The area is designated as an attainment or unclassifiable area for all regulated criteria air pollutants. There are no Class I areas located within ten (10) kilometers of the facility.

4.1.4 Permitting History

This facility was constructed in 1956 and modified in 1981. WWI,CJT failed to apply for a Permit to Construct (PTC) for the 1981 modification. On April 30, 1999, WWI,CJT was issued PTC # 027-00064 for their Caldwell facility.

4.1.5 Non-Applicable Activities

On July 26, 1999, DEQ received a PTC applicability request from WWI, CJT to construct a Powder Coating Line at their Caldwell facility. The application was determined incomplete on August 25, 1999 because the application did not provide throughput rates, quantitative and qualitative emission estimates, or any stack parameters. Information has subsequently been submitted and addresses the incompleteness issues.

Per the powder coating manufacturer, the powder coating products that are to be used are water based. Because they are water based and not solvent based, they contain no VOCs and therefore emit no VOCs. Furthermore, the powder coating process is a wet process and no particulate matter is emitted either during application or during curing. Based on this analysis, this process does not have a potential to emit and therefore is not subject to PTC requirements in accordance with IDAPA 58.01.01.200, or Tier I OP requirements in accordance with IDAPA 58.01.01.300.

4.2 Facility-Wide Applicable Requirements

4.2.1 Emission Description

Emissions from this facility result from processes associated with painting and composite fiberglass manufacturing. In addition, small amounts of emissions are emitted from natural gas-fired combustion sources and from welding. The regulated pollutants for which this facility is major are volatile organic compounds (VOCs) and hazardous air pollutants (HAPs); however, there is not a federal standard or federal requirement that applies for the HAP emissions (i.e. NESHAP, MACT).

A state-issued Permit to Construct has been issued to the facility. The permit limits VOC emissions to 150 tons per year (T/yr), and limits toxic air pollutants (TAPs) to their respective ambient standards as set forth in the (Rules). HAPs are regulated as TAPs under the state air toxics program.

Emissions units affected only by generally applicable requirements are discussed below.

4.2.2 Space Heaters and Hot Water Heaters

This facility includes thirty-three (33) natural gas-fired space heaters and two (2) industrial hot water heaters that are located within the facility's four (4) primary production buildings. The heaters provide general building heating and process heat needs. The following table identifies the buildings where the heaters are located, the quantity of heaters in each building, and the heat input of the heaters.

Table 1. Natural Gas-Fired Space Heaters

BUILDING ID NUMBER	QUANTITY	HEAT INPUT PER HEATER	HEAT INPUT ALL HEATERS
		Btu/hr	Btu/hr
Bldng 2-Fiberglass Mfg.	6	16,000	96,000
Bldng 3-Metal Fabrication	7	16,000	112,000
Bldng 3 Add'n-Metal Fab.	6	250,000	1,500,000
Bldng 4-Metal Fabrication	7	16,000	112,000
Bldng 5-Painting	7	16,000	112,000
Bldng 5-Painting (Water Htrs.)	2	600,000	1,200,000
TOTAL	35		3,132,000

In accordance with IDAPA 58.01.01.317.01.b.i.(18), space heaters and hot water heaters using natural gas, propane or kerosene and generating less than five million (5,000,000) Btu/hr are identified as insignificant activities for the purposes of the Tier I operating permit program. Therefore, the heaters listed in Table 1 are not specifically regulated in the Operating Permit (OP) drafted for this facility. Rather, they are subject to the generally applicable requirement for fuel burning equipment in accordance with IDAPA 58.01.01.676-677. This requirement limits particulate matter emissions from gas-fired emissions units to 0.015 grains per dry standard cubic foot (gr/dscf) corrected to 3% oxygen.

Only the hot water heaters vent emissions through stacks. So in addition to the generally applicable fuel burning equipment requirement, the hot water heater stacks are also subject to the generally applicable visible emission limitation in accordance with IDAPA 58.01.01.625. This requirement limits opacity from any point source to twenty (20) percent.

4.2.3 Air Intake Burner

A one million (1,000,000) Btu/hr natural gas-fired burner is located within the air intake duct work of the heat booth located in Building #5. The purpose of this burner is to pre-heat ambient air drawn into the heat booth to a thermostatically pre-set temperature. The heated air supplements electric heat lamps used to dry the top coat. In accordance with IDAPA 58.01.01.317.01.b.i.(5), combustion sources less than five million (5,000,000) Btu/hr, exclusively using natural gas, butane, propane, and/or LPG, are identified as insignificant activities for the purposes of the Tier I operating permit program. Therefore, the air intake burner is not specifically regulated in the draft OP. The air intake burner is subject to the generally applicable requirement for fuel burning equipment in accordance with IDAPA 58.01.01.676-677, and to the generally applicable visible emissions limitation in accordance with IDAPA 58.01.01.625. IDAPA 58.01.01.625 applies because combustion product emissions are vented through the same stack that vents heat and VOCs from the heat booth.

4.2.4 Welding

Each trailer is created by welding together stock steel and sheet metal. Per the permit application, annual welding rod throughput is around 10 T/yr. This value equates to 0.03 T/day assuming continuous operation. Per IDAPA 58.01.01.317.01.b.i.(9), welding, using not more than one (1) ton of welding rod per day, is identified as an insignificant activity for the purposes of the Tier I operating permit program. Therefore, welding is not specifically regulated in the draft OP. Welding emissions are subject to the generally applicable requirement for fugitive dust emissions in accordance with IDAPA 58.01.01.650-651.

4.2.5 Facility-Wide Applicable Requirements

4.2.5.1 Fugitive Particulate Matter - IDAPA 58.01.01.650-651

4.2.5.1 (a) Requirement

Facility-Wide Condition A.1 of the Tier I OP states that, all reasonable precautions shall be taken to prevent particulate matter from becoming airborne in accordance with IDAPA 58.01.01.650-651.

4.2.5.1 (b) Compliance Demonstration

Facility-wide Condition A.2 states that the permittee is required to monitor and record in a log the frequency and the methods used by the facility to reasonably control fugitive particulate emissions. IDAPA 58.01.01.651 gives some examples of ways to reasonably control fugitive emissions which include, use of water or chemicals, application of dust suppressants, use of control equipment, covering of trucks, paving of roads or parking areas, and removal of materials from streets.

Facility-wide Condition A.3 requires that the permittee maintain records of all fugitive dust complaints received. In addition the permittee is required to take appropriate corrective action as expeditiously as practicable after a valid complaint is received. The permittee is also required to maintain records which shall include the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken and the date the corrective action was taken.

To ensure that the methods being used by the permittee to reasonably control fugitive particulate matter emissions whether or not a complaint is received, facility-wide condition A.4 requires that the permittee conduct periodic inspections of the facility. The permittee is required to inspect potential sources of fugitive emissions during daylight hours and under normal operating conditions. If the permittee determines that the fugitive emissions are not being reasonably controlled the permittee shall take corrective action as expeditiously as practicable. The permittee is also required to maintain a log of the results of each fugitive emission inspection.

Both Facility-wide Conditions A.3 and A.4 require the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of receiving a valid complaint or determining that fugitive particulate emissions are not being reasonably controlled meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

4.2.5.2 Control of Odors - IDAPA 58.01.01.775-776

4.2.5.2 (a) Requirement

Facility-wide Condition A.5 and IDAPA 58.01.01.776 both state that: *"No person shall allow, suffer, cause or permit the emission of odorous gases, liquids or solids to the atmosphere in such quantities as to cause air pollution."* This condition is currently considered federally enforceable until such time it is removed from the SIP, at which time it will be a state-only enforceable requirement.

4.2.5.2 (b) Compliance Demonstration

Facility-wide Condition A.6 requires the permittee to maintain records of all odor complaints received. If the complaint has merit, the permittee is required to take appropriate corrective action as expeditiously as practicable. The records are required to contain the date that each complaint was received and a description of the complaint, the permittee's assessment of the validity of the complaint, any corrective action taken, and the date the corrective action was taken.

Facility-wide Condition A.6 requires the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of receiving a valid odor complaint meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

4.2.5.3 Visible Emissions - IDAPA 58.01.01.625

4.2.5.3 (a) Requirement

IDAPA 58.01.01.625 and Facility-wide Condition A.7 state that *"(No) person shall discharge any air pollutant to the atmosphere from any point of emission for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period which is greater than twenty percent (20%) opacity as determined . . ."* by IDAPA 58.01.01.625. This provision does not apply when the presence of uncombined water, nitrogen oxides, and/or chlorine gas are the only reason(s) for the failure of the emission to comply with the requirements of this rule.

4.2.5.3 (b) Compliance Demonstration

To ensure reasonable compliance with the visible emission rule, Facility-wide Condition A.8 requires that the permittee conduct routine visible emissions inspections of the facility. The permittee is required to inspect potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission covered by this section, the permittee must take appropriate corrective action as expeditiously as practicable. If opacity is determined to be greater than twenty percent (20%) for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period, the permittee must take corrective action and report the exceedance in its annual compliance certification and in accordance with the excess emissions rules in IDAPA 58.01.01.130-136. The permittee is also required to maintain records of the results of each visible emissions inspection which must include the date of each inspection and a description of the permittee's assessment of the conditions existing at the time visible emissions are present, any corrective action taken in response to the visible emissions, and the date corrective action was taken.

It should be noted that if a specific emission unit has a specific compliance demonstration method for visible emissions that differs from Facility-wide Condition A.8, then the specific compliance demonstration method overrides the requirement of Condition A.8. Condition A.8 is intended for small sources that would generally not have any visible emissions.

Facility-wide Condition A.8 requires the permittee to take corrective action as expeditiously as practicable. In general, the Department believes that taking corrective action within twenty-four hours of discovering visible emissions meets the intent of this requirement. However, it is understood that, depending on the circumstances, immediate action or a longer time period may be necessary.

4.2.5.4 Startup, Shutdown, Scheduled Maintenance, Safety Measures, Upset and Breakdown-IDAPA 58.01.01.130-136

4.2.5.4 (a) Requirement

Facility-wide Condition A.9 requires that the permittee comply with the requirements of IDAPA 58.01.01.130-136 for startup, shutdown, scheduled maintenance, safety measures, upset and breakdowns. This section is fairly self explanatory and no additional detail is necessary in this technical analysis. It should, however, be noted that subsections 133.02, 133.03, 134.04, and 134.05 are not specifically included in the permit as applicable requirements. These provisions of the *Rules* only apply if the Permittee anticipates requesting consideration under subsection 131.02 of the *Rules* to allow the Department to determine if an enforcement action to impose penalties is warranted. Section 131.01 states *". . . The owner or operator of a facility or emissions unit generating excess emissions shall comply with Sections 131, 132, 133.01, 134.01, 134.02, 134.03, 135, and 136, as applicable. If the owner or operator anticipates requesting consideration under Subsection 131.02, then the owner or operator shall also comply with the applicable provisions of Subsections 133.02, 133.03, 134.04, and 134.05."* Failure to prepare or file procedures pursuant to Sections 133.02 and 134.04 is not a violation of the *Rules* in and of itself, as stated in

subsections 133.03.a and 134.06.b. Therefore, since the Permittee has the option to follow the procedures in Subsections 133.02, 133.03, 134.04, and 134.05; and is not compelled to, the subsections are not considered applicable requirements for the purpose of this permit and are not included as such.

4.2.5.4 (b) Compliance Demonstration

The compliance demonstration is contained within the text of facility-wide condition A.9. No further clarification is necessary here.

4.2.5.5 Chemical Accident Prevention Provisions - 40 CFR Part 68

4.2.5.5 (a) Requirement

Any facility that has more than a threshold quantity of a regulated substance in a process, as determined under 40 CFR 68.115 must comply with the requirements of the Chemical Accident Prevention Provisions at 40 CFR Part 68 no later than the latest of the following dates:

Three years after the date on which a regulated substance present above a threshold quantity is first listed under 40 CFR 68.130; or

The date on which a regulated substance is first present above a threshold quantity in a process.

This facility is not currently subject to the requirements of 40 CFR Part 68. However, should the facility ever become subject to the requirements of 40 CFR Part 68 then it must comply with the provisions contained in 40 CFR Part 68 by the time listed above.

4.2.6 Monitoring

4.2.6.(a) PTC #027-00064

VOCs

WWI,CJT is required to calculate and record the total VOC emissions from the Building #5 finishing processes as well as the Building #2 fiberglass process on a daily basis, summed monthly, to demonstrate compliance with the annual VOC emission rate limit.

TAPs (**State Only**)

WWI,CJT is required to monitor and record the daily usage of each TAP-containing product in the Building #5 finishing process to demonstrate compliance with the allowable product usage limits established using refined modeling based equations. The finishing process emissions are more limiting to production than the fiberglass process emissions; therefore, limitations for the Building #2 fiberglass processes are not necessary in the permit.

4.2.6.(b) Visible Emissions

Filtration systems have been installed in all booths to control emissions. In order to ensure compliance with the visible emissions limitation, the PTC mandates that WWI,CJT (1) develop an Operations and Maintenance (O&M) Manual for the filtration systems using the air pollution control device manufacturer's specifications, (2) maintain the pressure drop across the filtration systems within the filter manufacturer's and O&M Manual's specifications, and (3) check and replace all filters as outlined in the O&M Manual.

In addition, the permittee is required to conduct a monthly facility-wide visible emissions inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission the permittee is required to take appropriate corrective action to remedy the cause of the visible emissions. If opacity is greater than twenty percent (20%) for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period the permittee is required to take all necessary corrective action and report the accedence in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136. The permittee is required to maintain records of the results of each monthly visible

emission inspection. The records shall, at a minimum, include the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed) and any corrective action taken in response to the visible emissions.

4.2.6.(c) Rules for the Control of Fugitive Dust

WWI,CJT is required to maintain records of fugitive dust complaints. WWI,CJT has the responsibility to assess the validity of the complaints and take any corrective action necessary to reasonably control fugitive dust.

4.2.6.(d) Fuel Burning Equipment

The fuel burning equipment grain loading standard applies to the space heaters, hot water heaters, and air intake burner as a generally applicable requirement. No monitoring is required because natural gas is used exclusively and the possibility of exceeding the grain loading standard is negligible.

4.2.7 Recordkeeping

WWI,CJT is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.a and b (Rules). The Permittee is required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five (5) year period. These records must be made available to DEQ representatives upon request.

4.2.8 Reporting

The Permittee is required to comply with the following reporting requirements:

Sufficient reporting to assure compliance with all of the terms and conditions of the permit. Reports for any required monitoring must be submitted at least every six (6) months in accordance with IDAPA 58.01.01.322.08 (Rules).

In accordance with IDAPA 58.01.01.322.08, WWI,CJT must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the permit, the Permittee must report any deviations of which he/she is aware.

Excess emission reporting as required to comply with the provisions of IDAPA 58.01.01.130 - 136 (Rules).

4.3 Alternative Operating Scenarios

No alternative operating scenarios were requested by the facility.

4.4 Trading Scenarios

No trading scenarios were requested by the facility.

4.5 Excess Emissions

The Permittee is required to follow the procedures in IDAPA 58.01.01.130-136 for excess emissions.

5. REGULATORY ANALYSIS - EMISSIONS UNITS

5.1 Emission Unit No. 1 - Building #2, Fiberglass Roof Manufacturing

5.1.1 Emission Unit Description

Fiberglass roofs for all of the trailers are manufactured exclusively in Building #2. Associated process emissions are vented through three (3) stacks that penetrate the building's roof. This section describes the processes and resulting emissions from Building #2. Please note, IDAPA 58.01.01.700, Particulate Matter--Process Weight Limitations, does not apply because the potential to emit is less than one (1) pound per hour.

GEL COAT BOOTH

The gel coat booth is a sheet metal enclosure where gel coat is applied to a roof mold. Gel coat is a thick, paint-like material that is sprayed onto the mold using a HVLP spray gun. Per the permit application, all HVLP guns used at this facility have a transfer efficiency of around sixty-five (65) percent. Two integrated exhaust stacks are located at the end of the booth in the corners. The front portion of each stack has been cut away to provide a pathway for process emissions. A combination of particulate and carbon filters cover the openings. The filters are designed to control particulate matter, and to a lesser degree, VOC emissions. Per the application materials, the particulate filters have a removal efficiency of greater than ninety (90) percent for particulate matter ten microns and greater in size. The carbon filters remove about thirty-five (35) percent of VOCs. Emissions exit the booth through two stacks that penetrate the roof and terminate as separate point sources. Exhaust air flow is induced by two fans, one on each stack, having a combined flowrate of approximately 20,500 actual cubic feet per minute (acfm). Pressure drop monitoring devices are located on the booth at each stack. Set points indicate when the filters are dirty and need to be replaced.

CHOP BOOTH

The chop booth is a sheet metal enclosure where fiberglass strands, resin, and a catalyst are sprayed onto the gel coat to provide added strength. A single HVLP gun incorporates all three components. Two integrated exhaust stacks are located at the end of the booth in the corners. The stacks are open and filtered in the same way as those described for the gel coat booth. Emissions exit the booth through two stacks that penetrate the roof, but instead of terminating as separate point sources, the stacks converge above the roof line and form one point source. Exhaust air flow is induced by a single fan with a flowrate of approximately 20,600 acfm. Pressure drop monitoring devices are located on the booth at each stack. Set points indicate when the filters are dirty and need to be changed.

5.1.2 Permit Requirement - [IDAPA 58.01.01.625]

5.1.2.(a) Applicability

In accordance with IDAPA 58.01.01.625, the visible emissions limitation applies to the three (3) point sources described above.

5.1.2.(b) Compliance Demonstration Method

Compliance with the visible emissions limitation will be assured by (1) requiring the pressure drop across the filtration systems be maintained within the filter manufacturer's and O&M Manual specifications, and (2) requiring that all filters be checked and replaced as outlined in the O&M Manual.

5.1.2.(c) Monitoring

Per PTC #027-00064, WWI,CJT is required to develop an O&M Manual for all booth filtration systems which describe the procedures that will be followed to ensure that all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit are at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintained in good working order and operated as efficiency as practicable to meet the manufacturer's air pollution control device specifications. In addition, WWI,CJT is required to monitor the pressure drop across the filtration systems on a weekly basis as outlined in the O&M Manual.

In addition, the permittee is required to conduct a monthly facility-wide visible emissions inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission the permittee is required to take appropriate corrective action to remedy the cause of the visible emissions. If opacity is greater than twenty percent (20%) for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period the permittee is required to take all necessary corrective action and report the accedence in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136. The permittee is required to maintain records of the results of each monthly visible emission inspection. The records shall, at a minimum, include the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed) and any corrective action taken in response to the visible emissions.

5.1.2.(d) Testing

Testing is not required.

5.1.2.(e) Recordkeeping

Per PTC #027-00064, WWI,CJT is required to record the pressure drop across the filtration systems on a weekly basis as outlined in the O&M Manual. In addition, the Permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.a and b (Rules). The Permittee is required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five (5) year period. These records must be made available to DEQ representatives upon request.

5.1.2.(f) Reporting

The Permittee is required to comply with the following reporting requirements:

Sufficient reporting to assure compliance with all of the terms and conditions of the permit. Reports for any required monitoring must be submitted at least every six (6) months in accordance with IDAPA 58.01.01.322.08 (Rules).

In accordance with IDAPA 58.01.01.322.08, WWI,CJT must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the permit, the Permittee must report any deviations of which he/she is aware.

Excess emission reporting as required to comply with the provisions of IDAPA 58.01.01.130 - 136 (Rules).

5.1.3 Permit Requirement - Annual VOC Emission Rate Limit

5.1.3.(a) Applicability

Per PTC #027-00064, facility-wide VOCs are limited to 150 tons per any consecutive twelve month period (150 T/yr). This value allows for maximum operational flexibility.

5.1.3(b) Compliance Demonstration Method

Per PTC #027-00064, compliance with the annual VOC emission rate limit will be demonstrated by calculating and recording the VOC emissions from the Building #5 finishing processes as well as the Building #2 fiberglass processes on a daily basis, summed monthly. Records of the calculated VOC emissions must include, but are not limited to, an explanation of the calculation methods, sample calculations, product usage rates, Material Safety Data Sheets, and product VOC content. The following equations are required to be used to calculate the monthly and annual VOC emission rates:

Monthly VOC Emission Determination Equation

$$VOC_m = \sum_{i=1}^{n} (X_i * Y_i)$$

Where:

VOC_m	=	monthly VOC emission rate (lb/mo)
X_i	=	VOC content of product i (% by weight)
Y_i	=	weight of product i used per month (lb/mo)
n	=	number of product i used

Annual VOC Emission Determination Equation

$$VOC_a = (\sum_{i=1}^{n} (VOC_m)_i)/2000$$

Where:

VOC_a	=	annual VOC emission rate (T/yr)
$(VOC_m)_i$	=	monthly VOC emission rate for month i
n	=	number of months

5.1.3(c) Monitoring

WWI,CJT is required to calculate VOC emissions based on product VOC contents and product usage rates on a monthly basis.

5.1.3(d) Testing

No testing is required.

5.1.3(e) Recordkeeping

WWI,CJT is required to record VOC emissions, product VOC contents and product usage rates on a monthly basis. In addition, the Permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.a and b (Rules). The Permittee is required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five (5) year period. These records must be made available to DEQ representatives upon request.

5.1.3(f) Reporting

The Permittee is required to comply with the following reporting requirements:

Sufficient reporting to assure compliance with all of the terms and conditions of the permit. Reports for any required monitoring must be submitted at least every six (6) months in accordance with IDAPA 58.01.01.322.08 (Rules).

In accordance with IDAPA 58.01.01.322.08, WWI,CJT must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the permit, the Permittee must report any deviations of which he/she is aware.

Excess emission reporting as required to comply with the provisions of IDAPA 58.01.01.130 - 136 (Rules).

5.2 Emissions Unit 2 - Building #5, Painting Operations

5.2.1 Emission Unit Description

All trailer preparation, priming, and painting occur exclusively in Building #5. Regulated air pollutant emissions from associated processes are vented through the building's roof. This section describes the processes and resulting emissions from Building #5. Please note, IDAPA 58.01.01.700, Particulate Matter--Process Weight Limitations, does not apply because the potential to emit is less than one (1) pound per hour.

PRIME BOOTH

The prime booth is a sheet metal enclosure where assembled trailers are painted with a primer coat. Primer is applied using HVLP spray gun(s). Two integrated exhaust stacks are located at the end of the booth in the corners. The stacks are open and filtered in the same way as those described for the gel coat booth. Emissions exit the booth through two stacks that separate into four stacks before penetrating the roof. Above the roof line, the stacks terminate as four separate point sources. Exhaust air flow is induced by four fans, one on each stack, having a combined flowrate of approximately 41,000 acfm. Pressure drop monitoring devices are located on the booth at each stack. Set points indicate when the filters are dirty and need to be changed.

CUT-IN BOOTH

The cut-in booth is a sheet metal enclosure where hard-to-reach areas are pre-painted, or where large areas can be repainted if needed. HVLP gun(s) are used to apply the paint. Emissions are exhausted through a series of filter banks located on the interior walls that run the length of the booth. There are 16 filter banks per wall. On each exterior wall, the filter banks join together and converge to form two single stacks that penetrate the roof and terminate as separate point sources. Exhaust

air flow is induced by four fans having a combined flowrate of approximately 19,000 acfm. Pressure drop monitoring devices are located on the booth at each stack. Set points indicate when the filters are dirty and need to be changed. A ceiling filter runs the length of the booth; however, it is not an emissions point. Air circulated within the booth merely flows through this filter medium.

TOP COAT BOOTH

The top coat booth is a sheet metal enclosure where the top coat, or the finishing coat of paint, is applied. HVLP gun(s) are used to apply the paint. Emissions are exhausted through a series of filter banks located on the walls that run the length of the booth. There are 11 filter banks per wall. On each exterior wall, the filter banks join together and converge to form two single stacks that penetrate the roof and terminate as separate point sources. Exhaust air flow is induced by two fans having a combined flowrate of approximately 39,000 acfm. Pressure drop monitoring devices are located on the booth at each stack. Set points indicate when the filters are dirty and need to be changed. A ceiling filter runs the length of the booth; however, it is not an emissions point. Air circulated within the booth merely flows through this filter medium.

REPAIR BOOTH

The repair booth is a sheet metal enclosure where paint repairs are done. This booth is used infrequently. Two integrated exhaust stacks are located at the end of the booth in the corners. The stacks are open and filtered in the same way as those described for the gel coat booth. Emissions exit the booth through two stacks that penetrate the roof and terminate as separate point sources. Exhaust air flow is induced by two fans having a combined flowrate of approximately 10,000 acfm. Pressure drop monitoring devices are located on the booth at each stack. Set points indicate when the filters are dirty and need to be changed.

HEAT BOOTH

The heat booth is a sheet metal enclosure where trailers are placed to allow the top coat to dry and cure. Electric heat lamps provide the primary source of heat. Supplemental heat is however supplied by the natural gas-fired air intake burner. Combustion product emissions, heat, and VOCs exit the booth through a single stack that penetrates the roof. Exhaust air is induced by a single fan having a flowrate of approximately 4,000 acfm. Emissions from the heat booth are uncontrolled.

5.2.2 Permit Requirement - [IDAPA 58.01.01.625]

5.2.2(a) Applicability

There are fifteen (15) stacks located on the roof of Building #5; however, only thirteen (13) are point sources associated with painting activities. The other two are the air intake roof cap and a non-functional stack located by the repair booth stacks. In accordance with IDAPA 58.01.01.625, the visible emissions limitation applies to the thirteen (13) stacks.

5.2.2(b) Compliance Demonstration Method

Compliance with the visible emissions standard will be assured by (1) requiring the pressure drop across the filtration systems be maintained within the filter manufacturer's and Operations and Maintenance (O&M) Manual specifications, and (2) requiring that all filters be checked and replaced as outlined in the O&M Manual.

5.2.2(c) Monitoring

Per PTC #027-00064, WWI,CJT is required to develop an O&M Manual for all booth filtration systems which describes the procedures that will be followed to ensure that all treatment or control facilities or systems installed or used to achieve compliance with the terms and conditions of this permit are at all times (except as provided in the *Rules for the Control of Air Pollution in Idaho*) maintained in good working order and operated as efficiency as practicable to meet the manufacturer's air pollution control device specifications. Furthermore, WWI,CJT is required to monitor the pressure drop across the filtration systems on a weekly basis as outlined in the O&M Manual.

In addition, the permittee is required to conduct a monthly facility-wide visible emissions inspection of potential sources of visible emissions, during daylight hours and under normal operating conditions. If any visible emissions are present from any point of emission the permittee is required to take appropriate corrective action to remedy the cause of the visible emissions. If opacity is greater than twenty percent (20%) for a period or periods aggregating more than three (3) minutes in any sixty (60) minute period

the permittee is required to take all necessary corrective action and report the accedence in its annual compliance certification and in accordance with IDAPA 58.01.01.130-136. The permittee is required to maintain records of the results of each monthly visible emission inspection. The records shall, at a minimum, include the date of each inspection and a description of the following: the permittee's assessment of the conditions existing at the time visible emissions are present (if observed) and any corrective action taken in response to the visible emissions.

5.2.2(d) Testing

Testing is not required.

5.2.2(e) Recordkeeping

Per PTC #027-00064, WWI,CJT is required to record the pressure drop across the filtration systems on a weekly basis as outlined in the O&M Manual. In addition, the Permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.a and b (Rules). The Permittee is required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five (5) year period. These records must be made available to DEQ representatives upon request.

5.2.2(f) Reporting

The Permittee is required to comply with the following reporting requirements:

Sufficient reporting to assure compliance with all of the terms and conditions of the permit. Reports for any required monitoring must be submitted at least every six (6) months in accordance with IDAPA 58.01.01.322.08 (Rules).

In accordance with IDAPA 58.01.01.322.08, WWI,CJT must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the permit, the Permittee must report any deviations of which he/she is aware.

Excess emission reporting as required to comply with the provisions of IDAPA 58.01.01.130 - 136 (Rules).

5.2.3 Permit Requirement - Annual VOC Emission Rate Limit

5.2.3.(a) Applicability

Per PTC #027-00064, facility-wide VOCs are limited to 150 tons per any consecutive twelve month period (150 T/yr). This value allows for maximum operational flexibility.

5.2.3(b) Compliance Demonstration Method

Per PTC #027-00064, compliance with the annual VOC emission rate limit will be demonstrated by calculating and recording the VOC emissions from the Building #5 finishing processes as well as the Building #2 fiberglass processes on a monthly basis. Records of the calculated VOC emissions must include, but are not limited to, an explanation of the calculation methods, sample calculations, product usage rates, Material Safety Data Sheets, and product VOC content. The following equations are required to be used to calculate the monthly and annual VOC emission rates:

Monthly VOC Emission Determination Equation

$$VOC_m = \sum_{i=1}^{n} (X_i * Y_i)$$

Where:

VOC_m	=	monthly VOC emission rate (lb/mo)
X_i	=	VOC content of product i (% by weight)
Y_i	=	weight of product i used per month (lb/mo)
n	=	number of product i used

Annual VOC Emission Determination Equation

$$VOC_a = (\sum_{i=1}^{n} (VOC_m)_i)/2000$$

Where:

VOC_a	=	annual VOC emission rate (T/yr)
$(VOC_m)_i$	=	monthly VOC emission rate for month i
n	=	number of months

5.2.3(c) Monitoring

WWI,CJT is required to calculate VOC emissions based on product VOC contents and product usage rates on a monthly basis.

5.2.3(d) Testing

No testing is required.

5.2.3(e) Recordkeeping

WWI,CJT is required to record VOC emissions, product VOC contents and product usage rates on a monthly basis. In addition, the Permittee is required to maintain sufficient recordkeeping to assure compliance with all of the terms and conditions of the permit as required by IDAPA 58.01.01.322.a and b (Rules). The Permittee is required to retain records of all monitoring and other requirements in the Tier I OP for the most recent five (5) year period. These records must be made available to DEQ representatives upon request.

5.2.3(f) Reporting

The Permittee is required to comply with the following reporting requirements:

Sufficient reporting to assure compliance with all of the terms and conditions of the permit. Reports for any required monitoring must be submitted at least every six (6) months in accordance with IDAPA 58.01.01.322.08 (Rules).

In accordance with IDAPA 58.01.01.322.08, WWI,CJT must report all instances of deviations from permit requirements. Therefore, even if specific monitoring is not required by the permit, the Permittee must report any deviations of which he/she is aware.

Excess emission reporting as required to comply with the provisions of IDAPA 58.01.01.130 - 136 (Rules).

5.2.4 Permit Requirement - Non-Carcinogenic Toxic Air Pollutant Emission Limits **(State Only)**

5.2.4(a) Applicability

WWI,CJT is required to demonstrate compliance with all applicable Toxic Air Pollutant (TAP) Non-Carcinogenic Increments as listed in IDAPA 58.01.01.585.

5.2.4(b) Compliance Demonstration Method

Per PTC #027-00064, the daily emission limits (pounds per day [lb/day]) for individual TAPs are determined by using the following equation:

(Eq. 1) $E = S/0.006$

Where: E = is the total allowable daily emissions in pounds (lb/day);
S = standard, 24-hour acceptable ambient concentration in milligrams per cubic meter (mg/m^3) from IDAPA 58.01.01.585; and
0.006 = factor which includes the normalized modeling results and conversion factors.

The 24-hour non-carcinogenic TAP emissions can not exceed the daily limits which shall be determined using Equation (1).

WWI,CJT is required to use Equation (1) to generate a list of daily emission rate limits for the TAPs emitted in the Building #5 finishing processes for which a standard in IDAPA 58.01.01.585 applies. Using these emission limits, WWI,CJT is required to establish a list of daily product limits (gallons per day [gal/day]) for each non-carcinogenic TAP-containing product in the Building #5 finishing process (e.g. paints, primers, etc.). These limitations must assure that the daily combined product usage will not cause an accedence of the emissions limits established using Equation (1). The product usage limits must be developed prior to each day's operations. The same list may be used day after day so long as it accounts for all the non-carcinogenic TAP containing products used.

5.2.4(c) Monitoring

WWI,CJT is required to monitor the daily usage of each non-carcinogenic TAP-containing product in the Building #5 finishing process.

5.2.4(d) Testing

Testing is not required.

5.2.4(e) Recordkeeping

WWI,CJT is required to record the daily usage of each non-carcinogenic TAP-containing product in the Building #5 finishing process.

5.2.4(f) Reporting

Any reporting shall be in accordance with IDAPA 58.01.01.123.

5.2.5 Permit Requirement - Carcinogenic Toxic Air Pollutant Emission Limits **(State Only)**

5.2.5(a) Applicability

WWI,CJT is required to demonstrate compliance with all applicable Toxic Air Pollutant (TAP) Carcinogenic Increments as listed in IDAPA 58.01.01.586.

5.2.5(b) Compliance Demonstration Method

Per PTC #027-00064, the daily emission limits (pounds per day [lb/day]) for individual carcinogenic TAPs are determined using the following equation:

(Eq. 2) $E = S*0.92$

Where: E = is the total allowable daily emissions in pounds (lb/day);
S = standard, [annual] acceptable ambient concentration for carcinogens in micrograms per cubic meter ($\mu g/m^3$) from IDAPA 58.01.01.586; and
0.92 = factor which includes the normalized modeling results and conversion factors.

The carcinogenic TAP emissions can not exceed the daily limits which are determined using Equation (2).

WWI,CJT is required to use Equation (2) to generate a list of daily emission rate limits for the TAPs emitted in the Building #5 finishing processes for which a standard in IDAPA 58.01.01.586 applies. Using these emission limits, WWI,CJT is required to establish a list of daily product limits (gallons per day [gal/day]) for each carcinogenic TAP-containing product in the Building #5 finishing process (e.g. paints, primers, etc.). These limitations must assure that the daily combined product usage will not cause an accedence of the

emissions limits established using Equation (2). The product usage limits must be developed prior to each day's operations. The same list may be used day after day so long as it accounts for all the carcinogenic TAP-containing products used.

5.2.5(c) Monitoring

WWI,CJT is required to monitor the daily usage of each carcinogenic TAP-containing product in the Building #5 finishing process.

5.2.5(d) Testing

Testing is not required.

5.2.5(e) Recordkeeping

WWI,CJT is required to record the daily usage of each carcinogenic TAP-containing product in the Building #5 finishing process.

5.2.5(f) Reporting

Any reporting shall be in accordance with IDAPA 58.01.01.123.

6. INSIGNIFICANT ACTIVITIES

In addition to the activities discussed in Section 4.2 of this memorandum, other insignificant activities include, but are not limited to, storage tanks (IDAPA 58.01.01.317.01.a.i.(4)), vents (IDAPA 58.01.01.317.01.a.i.(9)), cutting torches (IDAPA 58.01.01.317.01.a.i.(12)), wax application (IDAPA 58.01.01.317.01.a.i.(27)), plant maintenance (IDAPA 58.01.01.317.01.a.i.(28), street maintenance (IDAPA 58.01.01.317.01.a.i.(30), portable drums and totes (IDAPA 58.01.01.317.01.a.i.(37), and grinding and buffing (IDAPA 58.01.01.317.01.a.i.(49)). All of these activities are regulated under the generally applicable requirements.

7. COMPLIANCE PLAN AND COMPLIANCE CERTIFICATION

7.1 Compliance Plan

WWI,CJT is required to submit a compliance plan indicating each emissions unit complies, and will continue to comply, with the terms and conditions of IDAPA 58.01.01.314.10. In addition, if there are additional terms or conditions applicable to the source, WWI,CJT will meet the terms and conditions on a timely basis as required by DEQ. Furthermore, WWI,CJT must submit a compliance schedule if the emissions unit is not in compliance.

7.2 Compliance Certification

WWI,CJT is required to submit a periodic compliance certification for each emissions unit in the form of an annual report to DEQ and EPA within thirty (30) days after the end of each calendar year. WWI,CJT must certify compliance with all terms and conditions of the permit including, but not limited to, paint product and fiberglass product usages and emissions calculations, visible emissions standard, and fugitive emissions in accordance with IDAPA 58.01.01.322.11.

7.3 Compliance Inspection

The facility may be inspected at least annually by DEQ. Copies of the annual inspection reports are located in the facility's source file at DEQ's office in Boise, Idaho.

8. REGISTRATION FEES

IDAPA 58.01.01.525 applies to this facility. WWI,CJT shall determine annual emissions in a manner consistent with IDAPA 58.01.01.525 for the purposes of registration fees.

9. AIRS FACILITY SUBSYSTEM

The abbreviated AIRS data entry sheet is located in Appendix A.

10. RECOMMENDATION

Based on the Tier I OP application and review of the federal regulations and state rules, the Department recommends that Western World, Inc., Circle J Trailers be issued Tier I Operating Permit #027-00064 for their trailer manufacturing facility located in Caldwell, Idaho.

DS/BR/bm 47671 J:\AH\WROGERS\OP\TIER1\WESTWORL\FINAL\9701164.FTM

Attachments

cc: DEQ State Offices
Boise Regional Office
EPA, Region 10, L. Kral

APPENDIX A

AIRS Information

Western World Inc., Circle J Trailers
Caldwell, ID

9701641
December 2000

ABBREVIATED AIRS DATA ENTRY SHEET

Name of Facility: Western World Inc., Circle J Trailers

AIRS/Permit #: 027-00064

Permit Issue Date: December 6, 2000

*Source/Emissions Unit Name (25 spcs) (Please use name as indicated in permit)	SCC # (8 digit #)	Air Program (SIP/NESHAP/ NSPS/PSD)
Space Heaters	10500106	SIP
Hot Water Heaters	10100702	SIP
Air Intake Burner	10500106	SIP
Welding	30905254	SIP
Fiberglass Roof Mfg.	30800702	SIP
Painting - solvent-based	40200110	SIP
Painting - water-based	40200201	SIP
*		

RETURN TO PAT RAYNE
AIRS-PT.LST (3/99)